

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

TRANSLATION
PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

PCT4288

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2005/006139

International filing date (day/month/year)

30.03.2005

Priority date (day/month/year)

30.03.2004

International Patent Classification (IPC) or both national classification and IPC

Applicant

DAIFUKU CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JIP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/006139

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2005/006139

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1-7</u>	YES
	Claims _____	NO
Inventive step (IS)	Claims <u>1-7</u>	YES
	Claims _____	NO
Industrial applicability (IA)	Claims <u>1-7</u>	YES
	Claims _____	NO

2. Citations and explanations:

Document 1: JP 10-225129 A

Document 2: JP 11-206043 A

Document 3: JP 2003-134834 A

Document 4: JP 2002-78349 A

Document 1 discloses a configuration in which the phase difference between a current waveform and voltage waveform of a high-frequency current outputted from an inverter unit is automatically canceled.

Document 2 discloses a configuration in which no phase difference is present even when an electric current is supplied from a plurality of high-frequency power sources into a power feed line.

Document 3 discloses that carrier signals of a plurality of inverter control units connected in parallel are synchronized.

Document 4 discloses that the balance of the output currents between units is taken when inverter units are operated in parallel.

However, documents 1-4 neither disclose nor suggest measuring the output current to the induction line and power consumption, finding the phase difference between the output current and a rectangular signal, and advancing or delaying the rectangular signal according to this phase difference, which are a configuration of claims 1-7 of the present application.

Therefore, the inventions of claims 1-7 of the present application appear to possess novelty and involve an inventive step. Furthermore, they obviously possess industrial utility.